

COUPLING OF CONDUCTIVE VIAS TO COMPLEX POWER-SIGNAL SUBSTRUCTURES

Abstract of the Disclosure

5 An electrical structure, and associated method of formation, that includes a complex
power-signal (CPS) substructure. The CPS substructure is formed and tested to determine
whether the CPS substructure satisfies electrical performance acceptance requirements. The
testing includes testing for electrical shorts, electrical opens, erroneous impedances, and
electrical signal delay. If the CPS substructure passes the tests, then a dielectric-metallic (DM)
10 laminate is formed on an external surface of the CPS substructure. The DM laminate includes an
alternating sequence of an equal number N of dielectric layers and metallic layers such that a first
dielectric layer of the N dielectric layers is formed on an external surface of the CPS
substructure. N is at least 2. A multilevel conductive via is formed through the DM laminate
and is electrically coupled to a metal layer of the CPS substructure.